5/9/1 (Item 1 from file: 351)

DIALOG(R) File 351: Derwent WPI

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WPI ACC NO: 1988-093309/ XRAM Acc No: C1988-041823 XRPX Acc No: N1988-070608

Dehumidifier comprises porous panel and humidity absorbing panel - contg.

hygroscopic filler, where panels are laminated and absorbed vapour forms in

micron-sized pores and trickles from panel

Patent Assignee: DAIKEN TRADE & IND CO LTD (DKEN); DAIKIN KOGYO KK

(DAIK)

Inventor: ASANO K; MATSUOKA A; YOSHIMI S
Patent Family (9 patents, 14 countries)

Patent				App	plication				
Number		Kind	Date	Number		Kind	Date	Update	
ΕP	262826	Α	19880406	ΕP	1987308053	Α	19870911	198814	В
JΡ	63070740	Α	19880330	JP	1986216772	Α	19860912	198819	E
				JP	1986216774	Α	19860912		
JΡ	63070741	Α	19880330	JP	1986216773	Α	19860912	198819	E
				JP	1986216774	A	19860912		
JΡ	63070742	Α	19880330	JP	1986216774	A	19860912	198819	E
US	4818602	A	19890404	US	198795576	A	19870911	198916	E
ΕP	262826	В	19910320	ΕP	1987308053	A	19870911	199112	Ε
DE	3768751	G	19910425					199118	E
JP	1994033629	B2	19940502	JP	1986216772	A	19860912	199416	E
JP	1995003087	B2	19950118	JP	1986216774	Α	19860912	199507	E

Priority Applications (no., kind, date): JP 1986216774 A 19860912; JP 1986216773 A 19860912; JP 1986216772 A 19860912

## Patent Details

Number Kind Lan Pg Dwg Filing Notes

EP 262826 A EN 9 6

Regional Designated States, Original: AT BE CH DE ES FR GB IT LI LU NL SE

US 4818602 A EN 8

EP 262826 B EN

Regional Designated States, Original: AT BE CH DE ES FR GB GR IT LI LU NI.

SE

JP 1994033629 B2 JA 4 Based on OPI patent JP 63070740 JP 1995003087 B2 JA 4 Based on OPI patent JP 63070742

## Alerting Abstract EP A

Laminated hygroscopic composite comprises layer each of (A) porous body

of hardened cement, plaster or calcium silicate or sintered ceramic with

pore size below 10 micron, and (B) humidity absorbing body contg. hygroscopic fillers. Each body is pref. a flat plate and porous body pref.

has holes through which water can discharge. Moisture proof sheet with

permeation of less than 1 x 10 power(-4) g/m.h.mmHg is pref. fixed to other

side of porous plate. Opt., moisture absorbing plates are fixed to both sides of porous plate, or absorbing plate has central void which is filled

with porous body.

ADVANTAGE - Dehumidifier absorbs water vapour which reverts to free water

in micropores of body from which it is discharged. Function is retained for

long period of time and need to regenerate absorbent by heating is avoided.

## Equivalent Alerting Abstract US A

A hydroscopic composite has a porous body of cement, plaster or calcium

silicate hardened material and an inorganic sintered body with many micropores.

The micropores having an average diam. of below 10 microns.

This porous structure is laminated to a humidity adsorbing body containing a hydraulic substrate which absorbs moisture.

In use a steam pressure difference is generated across the structural interface allowing absorbed moisture to pass into the micropores and the

moisture to pass into the micropores and be converted into water.

ADVANTAGE - The structure can absorb moisture over a long period and convert it into free water.

ADVANTAGE - It can thus be used e.g. for structural panels. ADVANTAGE - (8pp)

Title Terms /Index Terms/Additional Words: DEHUMIDIFY; COMPRISE;
POROUS;

PANEL; HUMIDITY; ABSORB; CONTAIN; HYGROSCOPIC; FILL; LAMINATE; VAPOUR;

FORM; MICRON; SIZE; PORE; TRICKLE

## Class Codes

International Classification (Main): E04B-001/64

(Additional/Secondary): B01D-053/26, B32B-001/16, C04B-032/02, E04C-002/04

, E04C-002/26, E04C-002/52

US Classification, Issued: 428304400, 428307300, 428315500, 428316600, 428701000

File Segment: CPI; EngPI DWPI Class: L02; Q43; Q44

Manual Codes (CPI/A-M): L02-D07; L02-G

## Original Publication Data by Authority

### Germany

Publication No. DE 3768751 G (Update 199118 E)

Publication Date: 19910425

Language: DE

Priority: JP 1986216772 A 19860912

JP 1986216773 A 19860912

#### EPO

Publication No. EP 262826 A (Update 198814 B)

Publication Date: 19880406

\*\*Hygroskopisches Verbundmaterial

hygroscopic composite material

Materiau composite hygroscopique\*\*

Assignee: DAIKEN TRADE INDUSTRY CO LTD, 1-1 Inami, Inami-machi,

Higashi-tonami-gun Toyama Prefecture, JP (DKEN)

DAIKIN KOGYO KK (DAIK)

Inventor: Yoshimi, Satoshi, Daiken Trade Ind. Co. Ltd. Shin-asahi Bldg.,

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Matsuoka, Akira, Daiken Trade Ind. Co. Ltd, Shin-asahi Bldg, 3-18, Nakanoshima 2-ch., Kita-ku, Osaka 530, JP

Asano, Kazuhiko, Daiken Trade Ind. Co. Ltd, Shin-asahi Bldg, 3-18, Nakanoshima 2-ch., Kita-ku, Osaka 530, JP

Agent: Pennant, Pyers, et al, Stevens, Hewlett Perkins 5 Quality Court Chancery Lane, London, WC2A 1HZ, GB

Language: EN (9 pages, 6 drawings)

Application: EP 1987308053 A 19870911 (Local application)

Priority: JP 1986216772 A 19860912

JP 1986216773 A 19860912

JP 1986216774 A 19860912

Designated States: (Regional Original) AT BE CH DE ES FR GB IT LI LU NL SE

Original IPC: B01D-53/26 B32B-1/16 C04B-32/02 E04B-1/64 E04C-2/52 Current IPC: B01D-53/26 B32B-1/16 C04B-32/02 E04B-1/64 E04C-2/52 Original Abstract: A hygroscopic composite material comprising a humidity

absorbing body (1) having hygroscopic fillers in its basic material and

a porous body (2) having numberless micropores. This hygroscopic composite material is enabled to retain hygroscopicity for a long period of time by enhancing humidity absorbing function by generating

free water in the porous body (2) and by discharging the free water.

Claim: Laminated hygroscopic composite comprises layer each of (A) porous

body of hardened cement, plaster or calcium silicate or sintered ceramic with pore size below 10 micron, and (B) humidity absorbing body

contg. hygroscopic fillers. Each body is pref. a flat plate and porous

body pref. has holes through which water can discharge. Moisture proof

sheet with permeation of less than 1 x 10 power(-4) g/m.h.mmHg is pref.

fixed to other side of porous plate. Opt., moisture absorbing plates

are fixed to both sides of porous plate, or absorbing plate has  $\operatorname{central}$ 

void which is filled with porous body.

Publication No. EP 262826 B (Update 199112 E)

Publication Date: 19910320

\*\*Hygroskopisches Verbundmaterial

Hygroscopic composite material

Materiau composite hygroscopique\*\*

Assignee: DAIKEN TRADE INDUSTRY CO LTD, 1-1 Inami, Inami-machi,

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Inventor: Yoshimi, Satoshi, Daiken Trade Ind. Co. Ltd. Shin-asahi Bldg.,

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Matsuoka, Akira, Daiken Trade Ind. Co. Ltd, Shin-asahi Bldg, 3-18, Nakanoshima 2-ch., Kita-ku, Osaka 530, JP

Asano, Kazuhiko, Daiken Trade Ind. Co. Ltd, Shin-asahi Bldg, 3-18,

Nakanoshima 2-ch., Kita-ku, Osaka 530, JP

Agent: Pennant, Pyers et al, Stevens, Hewlett Perkins 5 Quality Court Chancery Lane, London, WC2A 1HZ, GB

Language: EN

Application: EP 1987308053 A 19870911 (Local application)

Priority: JP 1986216772 A 19860912

JP 1986216773 A 19860912

JP 1986216774 A 19860912

Designated States: (Regional Original) AT BE CH DE ES FR GB GR IT LI LU

SE

Original IPC: E04C-2/52 E04C-2/26 Current IPC: E04C-2/52(A) E04C-2/26

Claim: 1. Ein hygroskopisches Verbundmaterial, umfassend a) eine poroesen

Koerper (2), zusammengesetzt aus einem Zement-gehaerteten Koerper, einem Moertel-gehaerteten Koerper, einem Calcuimsilikat-gehaerteten Koerper, einem anorganischen gesinterten Koerper oder einer aehnlichen

poroesen Substanz und mit zahlreichen Mikroporen, deren mittleren Durchmesser kleiner als 10 microm ist, und

 $^{\star}$  b) einem Feuchtigkeit absorbierenden Koerper (1), der hygroskopische

Fueller enthaelt.

 A hygroscopic composite material comprising a) a porous body (2) composed of a cement hardened body, a plaster hardened body, a calcium

silicate hardened body, an inorganic sintered body or like Porous substance, and having numerous micropores whose average diameter is less than 10microm, and

b) a humidity absorbing body (1) containing hygroscopic fillers.

## Japan

Publication No. JP 63070740 A (Update 198819 E)

Publication Date: 19880330

Language: JA

Application: JP 1986216772 A 19860912 (Local application)

JP 1986216774 A 19860912

Publication No. JP 63070741 A (Update 198819 E)

Publication Date: 19880330

Language: JA

Application: JP 1986216773 A 19860912 (Local application)

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Publication No. JP 63070742 A (Update 198819 E)
Publication Date: 19880330
Language: JA
Application: JP 1986216774 A 19860912 (Local application)
Publication No. JP 1994033629 B2 (Update 199416 E)
Publication Date: 19940502
Assignee: DAIKEN TRADE & IND CO LTD (DKEN)
Inventor: YOSHIMI S.
  MATSUOKA A
  ASANO K
Language: JA (4 pages)
Application: JP 1986216772 A 19860912 (Local application)
Related Publication: JP 63070740 A (Based on OPI patent )
Original IPC: E04B-1/64(A) B01D-53/26(B) E04C-2/04(B) E04C-2/26(B)
Current IPC: E04B-1/64(A) B01D-53/26(B) E04C-2/04(B) E04C-2/26(B)
Publication No. JP 1995003087 B2 (Update 199507 E)
Publication Date: 19950118
Assignee: DAIKEN TRADE & IND CO LTD (DKEN)
  DAIKIN KOGYO KK (DAIK)
Inventor: YOSHIMI S
  MATSUOKA A
  ASANO K
Language: JA (4 pages)
Application: JP 1986216774 A 19860912 (Local application)
Related Publication: JP 63070742 A (Based on OPI patent )
Original IPC: E04B-1/64(A) B01D-53/26(B)
Current IPC: E04B-1/64(A) B01D-53/26(B)
 United States
Publication No. US 4818602 A (Update 198916 E)
Publication Date: 19890404
**Hygroscopic composite material**
Assignee: Daiken Trade Industry Co., Ltd.
Inventor: Yoshimi, Satoshi, JP
  Matsuoka, Akira
  Asano, Kazuhiko
Agent: Wenderoth, Lind Ponack
Language: EN (8 pages)
Application: US 198795576 A 19870911 (Local application)
Priority: JP 1986216772 A 19860912
  JP 1986216773 A 19860912
  JP 1986216774 A 19860912
Original IPC: C04B-32/02
Current IPC: C04B-32/02(A)
Original US Class (main): 428304.4
Original US Class (secondary): 428307.3 428315.5 428316.6 428701
Original Abstract: A hygroscopic composite material comprising a
humidity
    absorbing body having hygroscopic fillers in its basic material and
    porous body having many micropores. This hygroscopic composite
material
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retains its hygroscopicity for a long period of time by enhancing its humidity absorbing function by generating free water in the porous body and by discharging the free water. 5/9/2 (Item 1 from file: 347) DIALOG(R) File 347: JAPIO (c) 2007 JPO & JAPIO. All rts. reserv. 02453842 HUMIDITY CONDITIONING COMPOSITE MATERIAL PUB. NO.: 63-070742 [JP 63070742 A] PUBLISHED: March 30, 1988 (19880330) INVENTOR(s): MATSUOKA AKIRA ASANO KAZUHIKO YOSHIMI SATORU APPLICANT(s): DAIKEN TRADE & IND CO LTD [351869] (A Japanese Company or Corporation), JP (Japan) APPL. NO.: 61-216774 [JP 86216774] FILED: September 12, 1986 (19860912) INTL CLASS: [4] E04B-001/64; B01D-053/26; E04C-002/04; E04C-002/26 JAPIO CLASS: 27.2 (CONSTRUCTION -- Building); 13.1 (INORGANIC CHEMISTRY --Processing Operations) ? T S5/9/ALL FROM 351 (Item 1 from file: 351) DIALOG(R) File 351: Derwent WPI (c) 2007 The Thomson Corporation. All rts. reserv. 0004360199 WPI ACC NO: 1988-093309/ XRAM Acc No: C1988-041823 XRPX Acc No: N1988-070608 Dehumidifier comprises porous panel and humidity absorbing panel hygroscopic filler, where panels are laminated and absorbed vapour forms in micron-sized pores and trickles from panel Patent Assignee: DAIKEN TRADE & IND CO LTD (DKEN); DAIKIN KOGYO KK (DAIK) Inventor: ASANO K; MATSUOKA A; YOSHIMI S Patent Family (9 patents, 14 countries) Patent Application Number Kind Date Number Kind Date Update EP 262826 Α 19880406 EP 1987308053 A 19870911 198814 В JP 63070740 Α 19880330 JP 1986216772 A 19860912 198819 E JP 1986216774 Α 19860912 JP 63070741 JP 1986216773 Α 19880330 Α 19860912 198819 Ε JP 1986216774 Α 19860912 JP 63070742 A 19880330 JP 1986216774 A 19860912 198819 F. US 4818602 Α 19890404 US 198795576 A 19870911 198916 E

# ⊕ 公開実用新案公報(U) 昭63-70742

@Int\_Cl\_4

識別記号

庁内整理番号

**63公開 昭和63年(1988)5月12日** 

H 04 B 1/18 H 01 Q 1/44 A-7251-5K 7530-5 J

審査請求 未請求 (全2頁)

図考案の名称 FM受信機

②実 願 昭61-164546

**愛出 願 昭61(1986)10月27日** 

砂考 案 者

中 川

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⑪出 願 人

ソニー株式会社

東京都品川区北品川6丁目7番35号

⑩代理人 弁理士伊藤 貞 外1名

# 砂実用新案登録請求の範囲

1対のイヤホン本体に接続された複条のイヤホンコードをFM受信アンテナに兼用するようにしたFM受信機において、

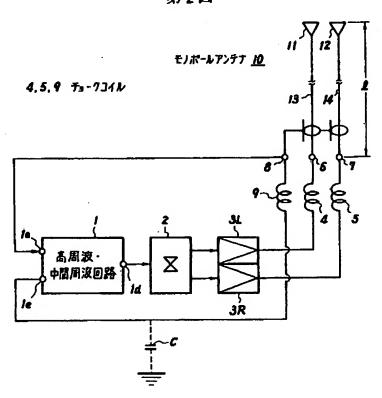
上記複条のイヤホンコードを上記イヤホン本体 毎に分離して、ダイポールアンテナを形成するようにして成るFM受信機。

# 図面の簡単な説明

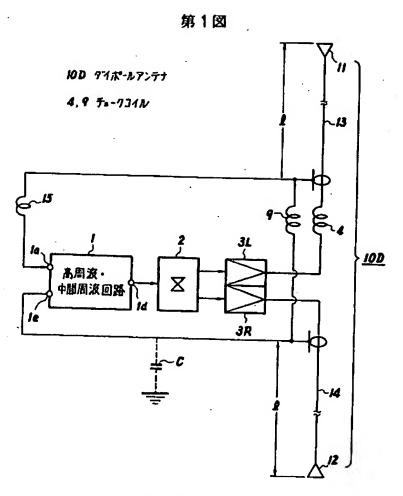
第1図は本考案によるFM受信機の一実施例の 構成を示すプロック図、第2図は従来のFM受信 機の構成例を示すプロック図である。

10Dはダイポールアンテナ、11, 12はイヤホン本体、13, 14はイヤホンコードである。

第2図



従来例



- 実施例